

the pelvis of the fœtus, the tips of the blades extending a little beyond the crests of the ilia to advantage. The blades should be applied in the bis-trochanteric diameter, the trochanters fitting into the fenestræ.

RIGIDITY OF THE CERVIX UTERI DURING LABOR NECESSITATING THE APPLICATION OF FORCEPS; LACERATION OF THE ANTERIOR LIP.

LOVIOT reports (*Ibid.*) the case of a primipara, aged twenty years, with whom it was necessary to apply the forceps. The perineum and pelvic floor were uninjured, but upon the anterior lip of the cervix uteri was torn transversely a piece of the tissue, and a portion about an inch square was entirely severed. The patient made an uninterrupted recovery, the cervix healing during the puerperal state.

THE CAUSATION OF PLACENTA PRÆVIA.

SCHRADER (*Zeitschrift für Geburtshülfe*, Band 19, Heft 1) describes the case of a multipara who had had a severe labor previously, during which version and extraction were necessary. This happened some time before the present pregnancy; the cervix uteri was lacerated. In her next confinement she suffered from hæmorrhage found to be caused by a placenta prævia. This, however, was not sufficiently severe to jeopardize the life of the patient. The cause for the abnormal attachment of the placenta was found in an excessive dilatation of the lower portion of the uterus with the firm union of the placental reflexa with that of the uterus. This has already been pointed out by Kaltenbach.

GYNECOLOGY.

UNDER THE CHARGE OF

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THE ELECTROLYSIS OF UTERINE FIBROMYOMATA.

ZWEIFEL (*Deutsche med. Wochenschrift*, October 2, 1890) regards this treatment as entirely symptomatic, and as such it must be acknowledged that it is superficial to any other palliative means, either medical or surgical. There is no doubt that the growth of the tumor may be arrested by galvanism, though sometimes this is noted only while the patient is under treatment; hence follows relief of certain pressure-symptoms. The hæmostatic action of the current is most striking. The writer has obtained better results with mild currents, as thirty milliampères, than with those of one to two hundred milliampères, and believes that they accomplish about the same as curetting and cauterization of the endometrium, and that the electrical treatment, though longer, is less dangerous. It must not be forgotten that proper cases

are to be selected, else valuable time may be lost in trying to relieve a patient by electricity who must eventually be brought to the operating-table, too late for the successful performance of myotomy. The writer believes, with Apostoli, that the effect of the positive pole within the uterus is purely a local cauterization, the chlorine which is set free exerting a powerful antiseptic action.

THE TECHNIQUE OF OPERATIONS FOR VESICO-VAGINAL FISTULA.

MARTIN (*Proceedings International Medical Congress, 1890*) describes a case of fifteen years' standing in which the entire vesico-vaginal septum with the upper portion of the urethra was missing, the cervix uteri being deeply torn. Two unsuccessful attempts at closure were made. After rendering the urine acid and healing the extensive erosions on the external genitals, the writer undertook to close the fistula. An incision was made through the healthy vaginal mucous membrane surrounding the opening; the laceration of the cervix was then closed, and the flap of vaginal mucosa was slid over the fistula and the opposite edges united. The raw surface in the anterior vaginal wall was next covered as in an anterior colporrhaphy. In spite of the amount of cicatricial contraction, and the presence of an intense vesical catarrh, the wound healed with the exception of a small opening in the cervix, which it was easy to cure by a subsequent operation. The disposition of the flap was similar to that employed by Volkmann in the operation for ectopion vesicæ.

ELECTRO-THERAPY IN GYNECOLOGY.

PROCHOWNICK (*Ibid.*) has applied this treatment carefully in 110 cases, with the following results: Fourteen patients with uterine fibromyoma were treated, seven on account of hæmorrhage, which was checked with either arrest of growth or diminution in the size of the tumor; three applied on account of pain and were entirely relieved. The applications were repeated at intervals of from three to five days and were continued for two or three months. The writer believes that this treatment is absolutely free from danger so long as one practises rigid antisepsis and avoids galvano-puncture, refraining from downward traction upon the cervix. Assuming, with Martin, that 80 per cent. of all fibrous tumors are of a benign character, perhaps one-third of these may be successfully treated with hot injections, ergot, hydrastis, etc. The remainder, especially growing tumors associated with pain and hæmorrhage, are best treated by electricity. Too few have yet been kept under observation for several years to enable us to determine if the benefit is permanent after cessation of the treatment. Apostoli himself admits that many patients have a recurrence of their symptoms after the lapse of a year, or a year and a half. The fact that some fibroids become cystic can hardly be attributed to the use of the continuous current, since this change may occur even where no treatment has been instituted. Some fibrous tumors continue to grow in spite of treatment, others are associated with malignant degeneration of the endometrium, and many become malignant or rapidly undermine the general health; in these cases there is no alternative save a radical operation.

Twenty-two cases of chronic perimetritis, associated with ovarian and tubal disease, were treated with more or less success. In twelve cases, in which a gonorrhœal history was absent, pain and hæmorrhage were the principal symptoms; eight were permanently relieved by a current of 100 to 150 milliampères (the greatest number of *séances* being fifteen), two could not bear the treatment, and in two cases it was necessary to perform laparotomy. Less favorable results were obtained in the case of the ten patients whose condition was due to gonorrhœal infection; five were entirely relieved, two somewhat, and in two fresh inflammation was set up. Of course it is not claimed that an anatomical cure takes place in cases of pyosalpinx, although the tumor sometimes appears to grow smaller, but the distressing pains, hæmorrhage, and vaginal discharge are certainly relieved, and frequently. Greater care must be used in the introduction of the sound than in cases of fibromyoma, and more attention must be paid to the after-treatment of the patient. The current used in the treatment of perimetritis should not exceed 150 milliampères. The writer did not continue the treatment longer than three months, giving two *séances* a week; his patients were made to rest for two hours after each application.

THE GALVANIC CURRENT IN GYNECOLOGY.

APOSTOLI (*Ibid.*) states the following as his present views upon the subject:

1. The principal value of the constant current is in its action in cases of fibroid tumors and endometritis, especially where pain and hæmorrhage are constant symptoms. It not only arrests the growth of benignant tumors, but promotes the absorption of peri-uterine exudations. It is absolutely contra-indicated in acute suppurative inflammation of the adnexa.

2. The galvanic current possesses a polar and an interpolar action, the latter being of a trophic and dynamic character, the former thermic and antiseptic.

3. The more powerful currents (above fifty milliampères) possess these advantages: *a.* They influence the circulation through the development of heat (*drainage circulatoire*). *b.* They are antiseptic and germicidal. *c.* Their effect increases as the square of current-strength. *d.* They can be easily employed by the general profession. *e.* The stronger the current employed the less the probability of a return of the symptoms.

4. Intra-uterine galvanization is preferable because by it the maximum effect is obtained, the antiseptic action of the positive pole is secured, direct cauterization is effected, and there is less pain than in the intra-vaginal method.

5. In proper cases galvano-puncture by means of a fine gold needle, insulated up to within one-fifth of an inch of its point, enables the operator to concentrate the action better and to produce a more powerful effect with weak currents.

6. As compared with the application of caustics and curetting, intra-uterine galvanization is far more harmless, as shown by the writer's experience, who, between July, 1882, and July, 1890, had practised the latter 11,499 times with only three fatal results—once in a case of galvano-puncture for subperitoneal fibroma, once in a case of galvano-puncture for salpingo-

oöphoritis, and once where the same treatment was employed in the case of an ovarian cyst, which was mistaken for a fibroid. In thirty instances pregnancy followed the use of intra-uterine applications.

THE RESULTS OF TREATMENT BY APOSTOLI'S METHOD.

CUTTER (*Ibid.*) calls attention to the fact that in 1871 he treated a case of uterine fibromyoma by galvanism, following essentially the method subsequently developed by Apostoli. In his experience he had found that the growth of the tumor was arrested in 50 per cent. of his cases, that there was slight improvement in 6 per cent., no diminution in the size of the tumor in 14 per cent., and more or less complete disappearance in 22 per cent. His mortality was 8 per cent. With the patient anesthetized, he introduces both electrodes through the abdominal wall into the tumor and allows the current to pass for five or ten minutes, rest in bed being enjoined for several days subsequently with restricted diet, two-thirds meat and one-third vegetable; diet he regards as extremely important.

DRAINAGE AFTER LAPAROTOMY.

SÄNGER (*Med. Anzeiger zum Centralblatt für die ges. Medicin*, August 30, 1890) reviews the literature of this subject, tracing the evolution of drainage from Koeberlé to Hegar. Drainage may be effected by glass tubes, by tamponade with absorbent gauze, or by the two combined. The writer prefers the latter method, using slightly-curved tubes with a diameter of two-fifths of an inch, having small, lateral perforations one-twenty-fifth of an inch in diameter; these are boiled and are kept in a solution of bichloride, 1 : 500. After removing the fluid from the tube, previous to applying the dressings, it is stuffed with aseptic gauze, which is not changed for twenty-four hours. No syringe is used to withdraw the fluid. The drainage-tube is removed on the third or fourth, though occasionally not until the sixth or eighth day. The writer believes that drainage acts as a "safety-ventilation," allowing the discharge of secretions which, if retained within the cavity, would serve as a nidus for septic infection.

The use of a gauze-drain alone has certain disadvantages, since the portion within the pelvic cavity soon becomes soaked and ceases to act as a capillary drain; it is then impossible to change it, since if it is drawn out the fluid is squeezed back into the cavity. Even when it is necessary to tampon on account of obstinate oozing, it is better to use a glass tube with the gauze. It is not necessary to resort to "ventro-vaginal drainage," as recommended by Martin in cases of myomectomy, since all secretion can be thoroughly removed through the abdominal drain.

Drainage should be employed under the following circumstances:

1. When there exist at the time of the operation circumscribed collections of blood or decomposed fluid, which exceed in virulence the absorptive power of the peritoneum.
2. When it is probable that there will be a subsequent secretion of fluid which may serve as a focus of infection.
3. When there has been an injury to the bladder or gut and there is a chance that their contents may escape into the cavity.
4. When it is desirable to shut off large raw surfaces from the general peritoneal cavity.